BNX® 8000
Antioxidant and Thermal Stabilizer

Overview
BNX 8000 is a phenolic antioxidant that provides excellent processing and thermal stability in natural and synthetic rubbers, adhesives, and styrenic polymers.

Chemistry

- **Chemical Name**: Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene
- **CAS Number**: 68610-51-5
- **Chemical Structure**:

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  OH
 /   \n(CH₃)ₙ   \n  OH
 /   \    CH₃
    /     
   /   \   
  /     
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**Typical Properties**
- **Product Form**: Solid
- **Melting Range**: > 104°C
- **Molecular Weight**: 600 – 800 g/mol

**Solubility (percent by weight, 20°C)**
- **Water**: < 0.1

Applications
BNX 8000 is an excellent antioxidant for natural and synthetic polymers based on isoprene and/or butadiene, including uncured, sulfur-cured, and peroxide-cured systems. The product is recommended for use in a wide range of end use applications, including adhesives, molded rubber products, latex products, shoe soles, carpet backing, automotive mats, white side walls, etc. BNX 8000 also provides excellent thermal stability in styrenic polymers (ABS, ASA, SIS, SBS, MBS, SBR, and others.). It is also suitable for use in aqueous dispersions.
Advantages
- Provides excellent aging resistance in natural and synthetic rubber formulations
- Provides excellent protection for SIS formulated and natural rubber based pressure sensitive adhesives and neoprene-based solution adhesives
- Non-discoloring / non-staining
- Excellent resistance to extraction
- Low volatility
- FDA cleared in adhesives, rubber articles for repeat use, and in ABS

Guidelines for Use
Recommended concentrations in elastomers and adhesives range from 0.1 to 3%. Combinations of BNX 8000 with other antioxidants such as phosphites and thioethers often show synergistic performance. BNX 8000 is also suitable for use in combination with light stabilizers, including hindered amine light stabilizers (HALS), UV absorbers, and benzoates. The exact formulation to be used is dependent on the substrate, performance requirements, and other factors, and should be determined by the user based on testing to simulate actual conditions of use. Please contact Mayzo for specific recommendations.

Storage
This product may be stored up to two years in a sealed container. Containers should be kept tightly closed when not in use and stored in a cool, dry place.

Safety
Please consult the Safety Data Sheet (SDS) prior to handling or using this product.

FDA Regulations
BNX 8000 is cleared for use in adhesives under 21 CFR §175.105, for use in pressure-sensitive adhesives, under 21 CFR §175.125, in rubber articles intended for repeat use under 21 CFR §177.2600, and in acrylonitrile-butadiene-styrene copolymers under 21 CFR §178.2010. Please contact your Mayzo representative for complete details, including restrictions of use.

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